

What is claimed is:

1. A braking system for battery-powered industrial trucks, comprising:
  - a three-phase driving motor (10) which drives a driving wheel,
  - 5 a first braking device (12) associated with the driving wheel,
  - a brake pedal (20) with which a braking signal generator (22) is associated to generate an electric braking signal corresponding to a first desired braking force in response to the excursion of the brake pedal (20),
  - a control device (14, 16) for the driving motor (10),
  - 10 a first conversion unit (32) in the control device which converts said braking signal into a desired torque for the driving motor (10),
  - a second conversion unit (34) in the control device which converts the actual torque of the driving motor (10) into an actual braking force,
  - a comparator device (36) in a braking control (18) in which the first
  - 15 desired braking force is compared to the actual braking force to form a second desired braking force for the second braking device (44, 46).
2. The braking system as claimed in claim 1, characterized in that a third
  - conversion unit (38) is provided which transforms the second desired braking
  - 20 force into a braking current and a current regulator (40, 42) predetermines said second desired braking force for the second braking device (44, 46) in response to a current braking force characteristic.
3. The braking system as claimed in claim 1, characterized in that the brake
  - 25 control device (34) generates a hard stop signal for said first braking device (12) when the braking signal of said braking signal generator becomes a maximum.
4. The braking system as claimed in claim 1, characterized in that the brake
  - control device (18) generates a hard stop signal for said first braking device

when a monitoring device receives an error signal with regard to said second braking device (44, 46), the steering of the industrial truck or said braking signal (20).

- 5     5. The braking system as claimed in claim 3, characterized in that said hard stop signal is provided to said first braking device (12) via a time delay member.
6. The braking system as claimed in claim 1, characterized in that the industrial truck has a travel direction sensor and/or a load sensor sensing the load imposed  
10     the signals of which are inputted to the brake control device and said brake control device varies the second desired braking force in dependence on the direction of travel and/or the load.
7. The braking system as claimed in claim 1, characterized in that the industrial  
15     truck has a lifting height sensor the signal of which is provided to said brake control device and the second desired braking force is varied in dependence on said lifting height.

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